



Designer 1000



Interior Partition Assembly Installation Guide



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Introduction

The intension of this booklet is to not hard sell to you on the benefits of 'Designer 1000' partitioning as opposed to other low recovery partitioning systems, but to simply acquaint you (as the client) with the full range and versatility of the suite, and to better enlighten yourself as to the merits of one concept as opposed to another.

You will achieve a better understanding of your chosen concept, as to exactly what has gone into your office system and conclude that you are indeed achieving value for your investment.

No effort has been spared developing to the fullest all partition suites, as with this booklet to present you with the latest, innovative and most up to date economical solution to any perceived requirement in an unbiased fashion. With this in mind you will note that all concepts have been rigorously tested by 'BRANZ' and endorsed as achieving, and indeed exceeding all specifications deemed as necessary for individual concepts.

In conclusion we would add that, should your desired concept not be prepared in this booklet then we can only say that at the time of print it had not been thought of, and that we would gladly welcome your enquiry.



Designer 1000 Partitioning Into 2000 and Beyond

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Sound Transmission Code (STC)

Sound insulation is measured in decibels (dB). If a sound level of 70 dB is generated in one room, and the sound level in the adjacent room is 30 dB, the difference between the sound levels is a measure of insulation provided by the wall and the wall is referred to as having $70 \text{ dB} - 30 \text{ dB} = 40 \text{ dB}$ sound transmission loss. A factor that must be considered is the background noise level, also measured in dB. This will mask an equivalent amount of sound (in dB) already present in the room. Background noises can be caused by street traffic, trains, mechanical equipment etc, and the level of this background noise is dependent upon the building and room location.

The basic objective, therefore in sound insulation is to reduce the transmitted noise level (i.e. the aforementioned 30 dB level in the second room) below that of the background noise or to an acceptable level, whichever is greater.

To compare the effectiveness of a wall or the floor construction in preventing the passage of airborne sound, a two room sound test method is generally used. A steady, known sound level of a certain frequency is generated on one side of the wall (or floor) and then measured in the room on the other side. This enables a wall sound transmission loss (dB) to be calculated and this recorded. Sound levels of other frequencies are also included in the test procedure, resulting in a variety of wall sound transmission losses.

Obtained from this data is the STC or the Sound Transmission Class of the wall or floor. The STC is a convenient single number acoustic rating for walls and other partitions. The STC rating is easy to use and is currently the most realistic way to compare acoustic performance. The higher the STC value, the better the assembly will resist sound passage.

Sound Transmission Class (STC)

Example of how STCs relate to partition performance

25	30	35	42	45	48	50
Normal speech can be heard quite easily	Loud speech can be heard quite easily	Loud speech can be heard but not understood	Loud speech can be heard only as a murmur	Must strain to hear loud speech	Only some loud speech can be barely heard	Loud speech cannot be heard

Wall Performance – Lab and In – Situ

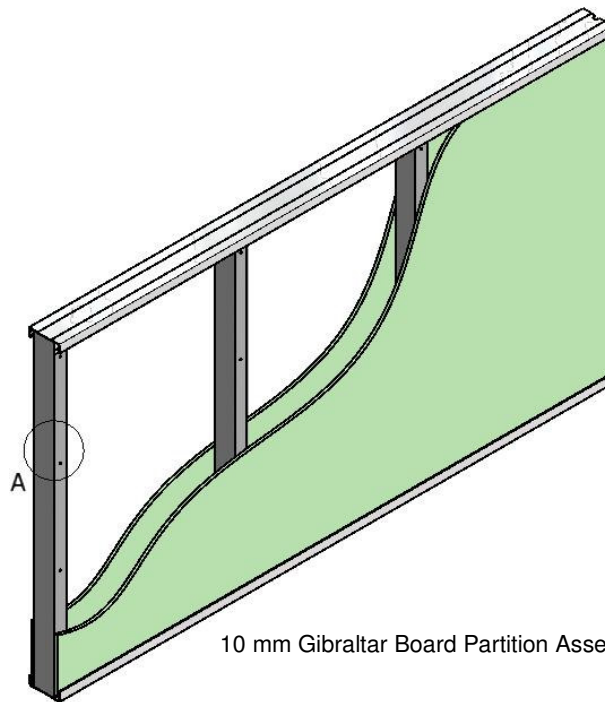
The most common method of rating the wall or floor sound transmission performance is by using the laboratory obtained STC value.

While the manufacturers of building materials and systems may exercise great care to properly determine the acoustic performance of their products, many of the benefits of walls and floors with high STC ratings can be lost because of poor construction details or improper installation. The laboratory measured performance of partitions will not be achieved in buildings unless both the specification of the acoustically rated wall and the construction details described later are strictly followed. Laboratory STC ratings of partitions alone do not necessarily determine the acoustic privacy of the total construction. In fact, a tested partition of STC rating 50 may only achieve STC 40 or worse if in – situ construction is not of the highest standard.

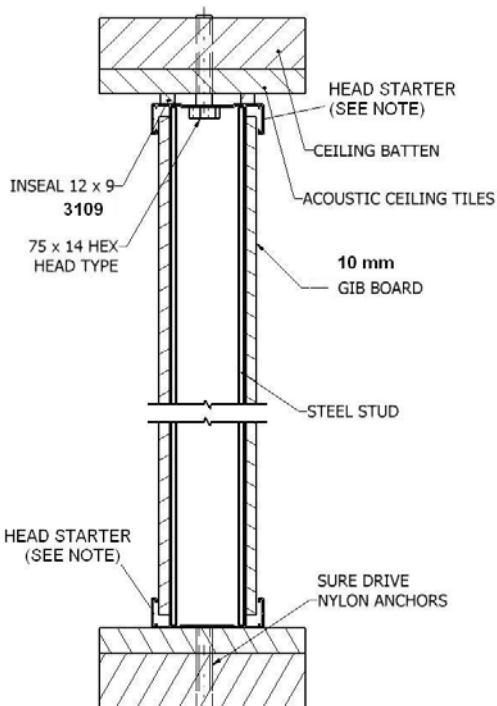


Solid Wall Non – Load Bearing, 10 mm Gibraltar Board Lining

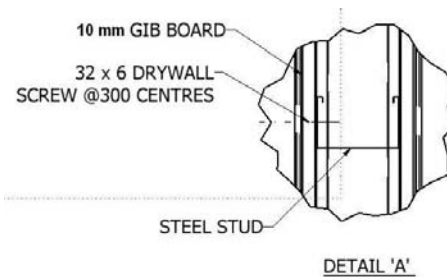
Steel Stud	Sound Transimission	Soft Body Test	Deflection	F.R.R.



10 mm Gibraltar Board Partition Assembly



Vertical Section Showing Inner Detail



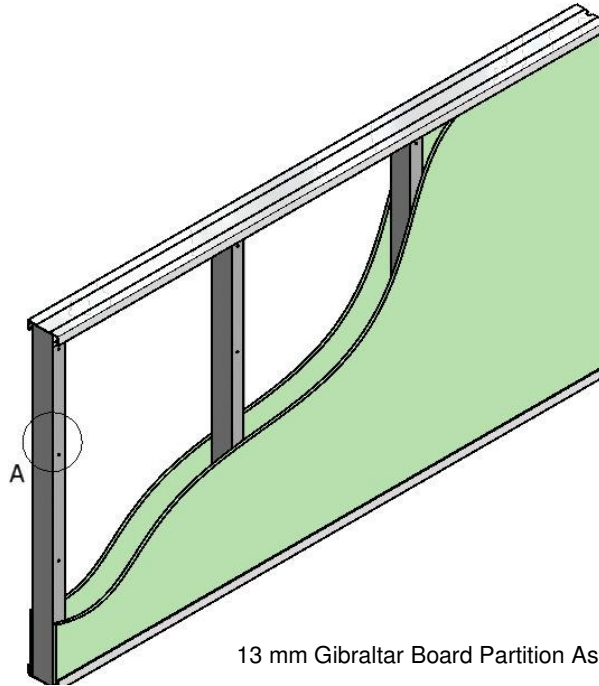
This wall is best suited as a medium quality full height room divider where sound transmission is of low priority. The wall surface is not as flat as that of 13 mm gibboard.

NOTE: Head Starter UA 4359 if Powder coated / Anodized

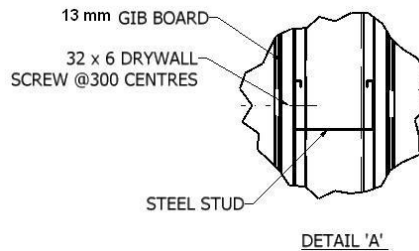
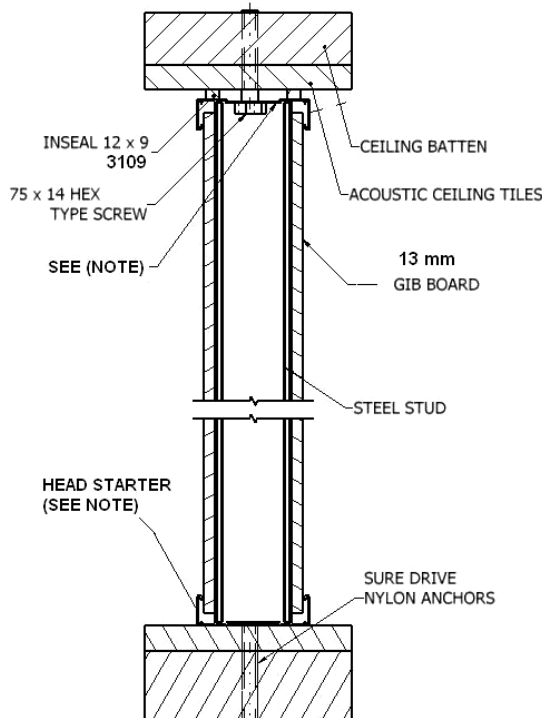


Solid Wall Non – Load Bearing, 13 mm Gibraltar Board Partition

Steel Stud	Sound Transimission	Soft Body Impact Test	Deflection	F.R.R. Hours
63.5 x 0.55				1 / 2
63.5 x 0.7				1 / 2



13 mm Gibraltar Board Partition Assembly



This wall is best suited as a high quality full height room divider where sound transmission is of low priority. The thicker lining gives a flatter and stronger surface

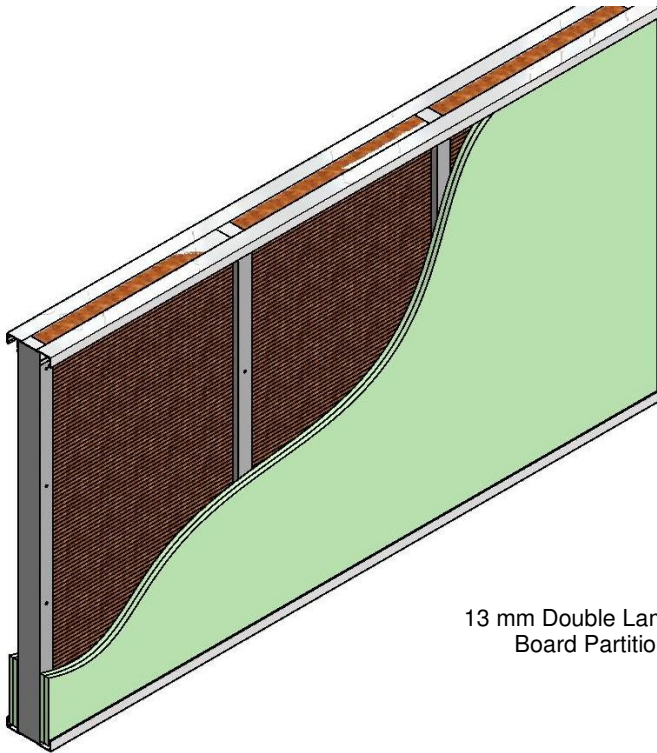
NOTE: Head Starter UA 4362 if Powder coated / Anodized
 Starter Cap UA 4364 if Anodized
 Starter Cap UA 4363 if Powder coated

Vertical Section Showing Inner Details



Solid Wall Non – Load Bearing 13 mm, Double Laminated Gibraltar Board

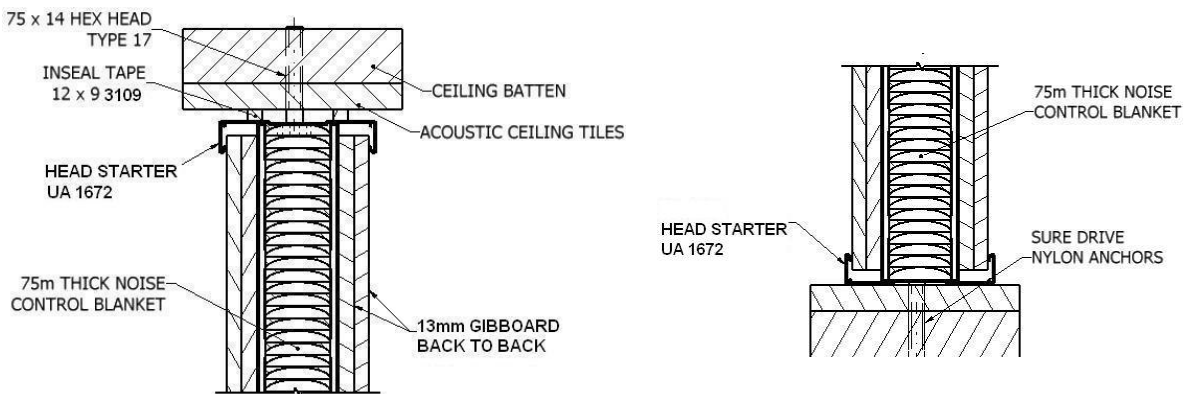
Steel Stud	Sound Transimission	Soft Body Impact Test	Deflection	F.R.R. Hours
63.5 x 0.55				
63.5 x 0.7				



S.B.adhesive by SIKA between gibboard and stud.

Fix with 32x6 drywall screws @300 centres (by Ullrich Aluminium)

13 mm Double Laminated Gibraltar Board Partition Assembly

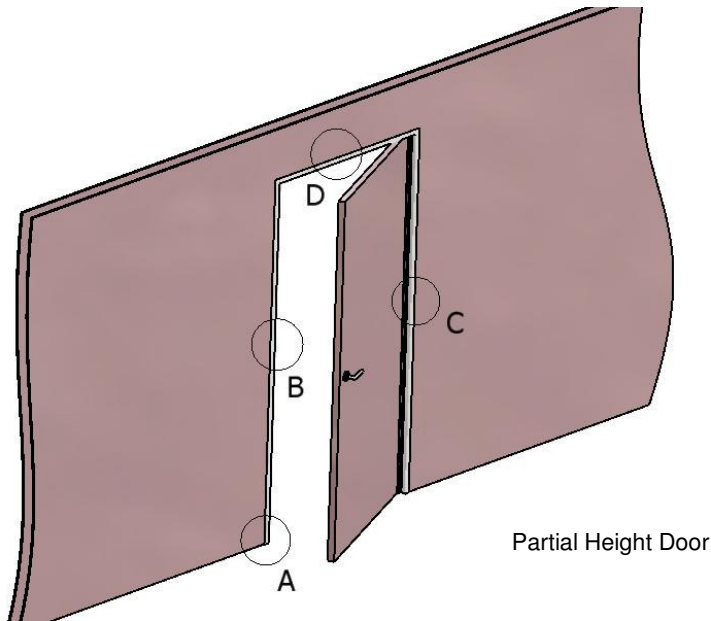


Sections Showing Inner Details of the Assembly

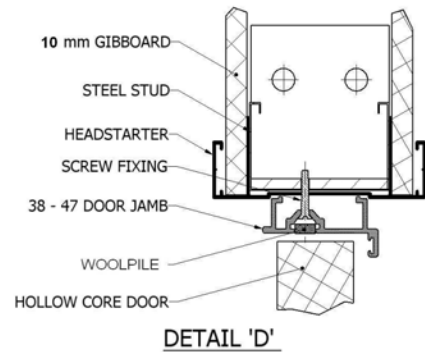


Door Framing / Partial Height / Solid Wall

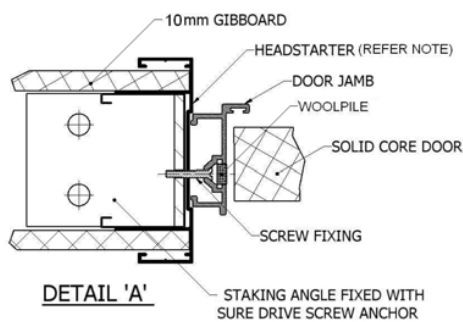
S.T.C.	Slam Test	Soft Body Impact	Deflection



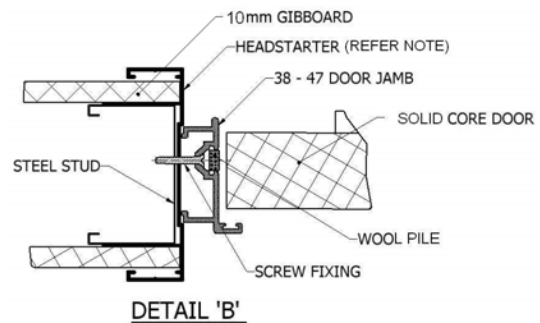
Partial Height Door



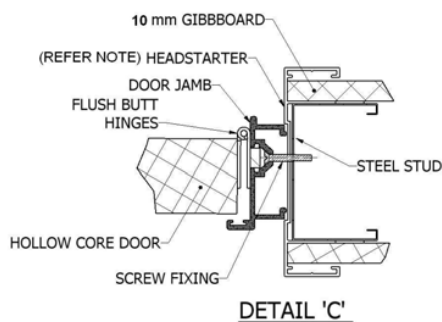
DETAIL 'D'



DETAIL 'A'



DETAIL 'B'



DETAIL 'C'

This concept is best suited where standard 1980 mm high doors are required in lieu of the full height door. This option also lends itself well to the addition of a borrowed light window above the door simply by including glazing bar and bead.

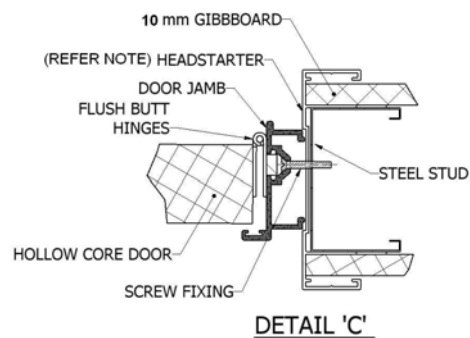
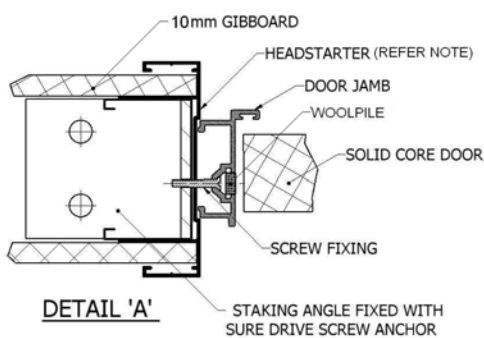
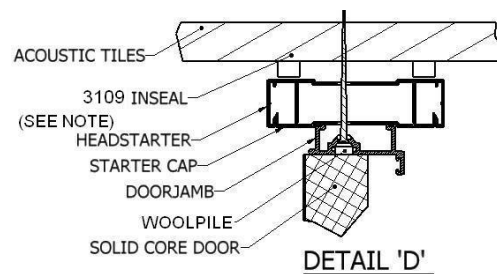
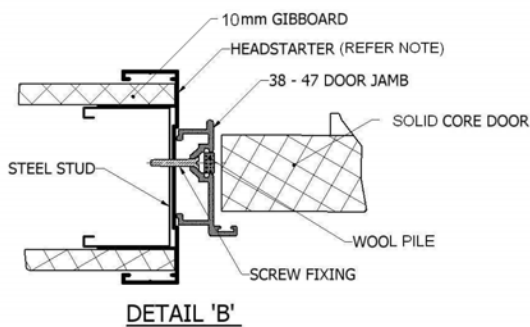
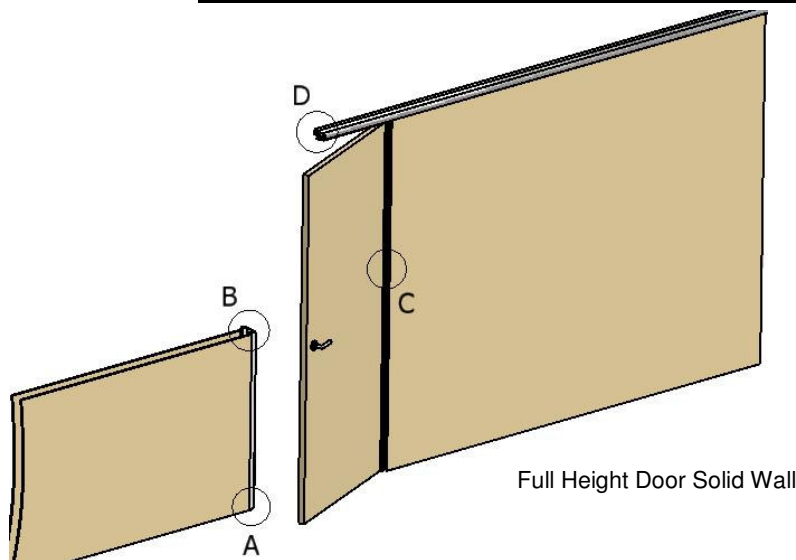
NOTE: Head Starter UA 4359 if Powder coated / Anodized

Door Jamb UA 1788 38 – 42 mm Doors
UA 2062 42 – 47 mm Doors



Door Frame / Full Height / Solid Wall

S.T.C.	Slam Test	Soft Body Impact	Deflection



This concept is best suited when the least amount of sound transmission is required together with architrave sound.

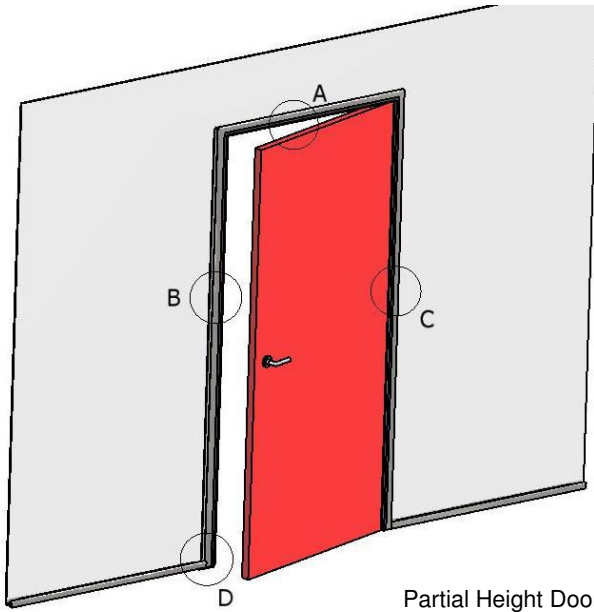
NOTE: Head Starter UA 4359 if Powder coated / Anodized
 Starter Cap UA 4360 if Powder coated / Anodized

Door Jamb UA 1788 38 – 42 mm Doors
 UA 2062 42 – 47 mm Doors

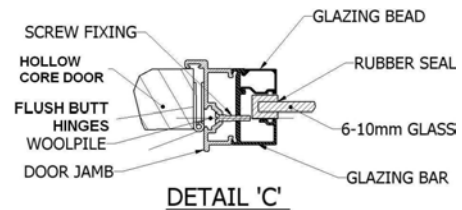
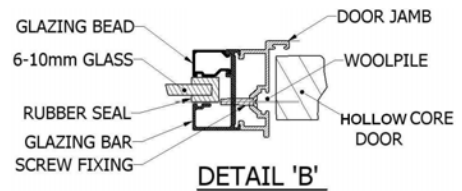
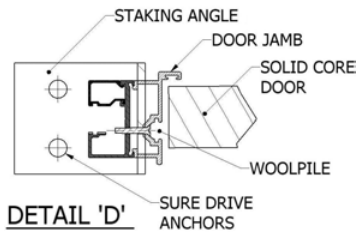
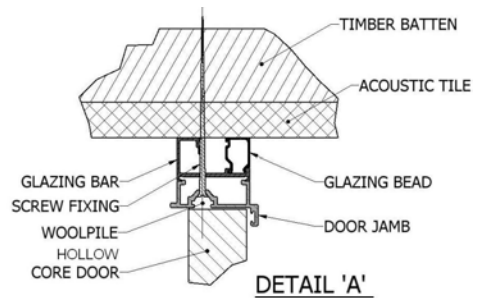


Door Framing / Partial Height / Glass Wall

S.T.C.	Slam Test	Soft Body Impact	Deflection



Partial Height Door Glazed Wall Assembly



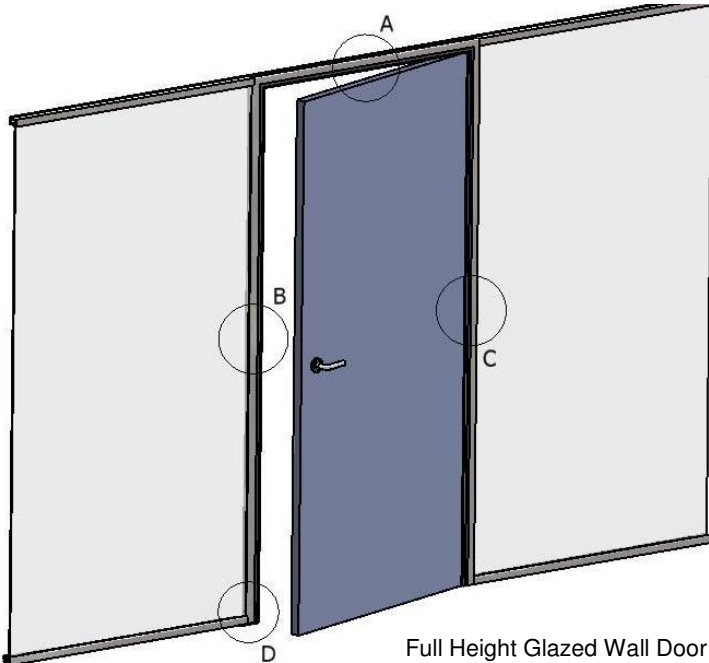
This concept is best suited where standard 1980 mm high doors are required in lieu of the full height door. Not recommended in a high traffic area when a seismic bracing is required, as top of the door jamb is not anchored.

NOTE: Door Jamb UA 1788 38 – 42 mm Doors
 UA 2062 42 – 47 mm Doors

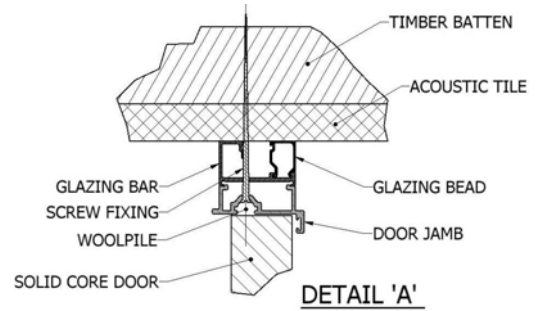


Door Framing / Full Height / Glass Wall

S.T.C.	Slam Test	Soft Body Impact	Deflection

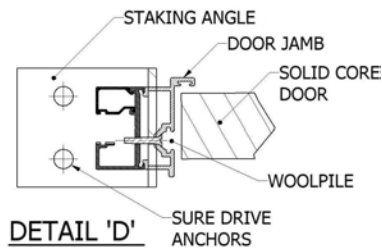


Full Height Glazed Wall Door Frame Assembly

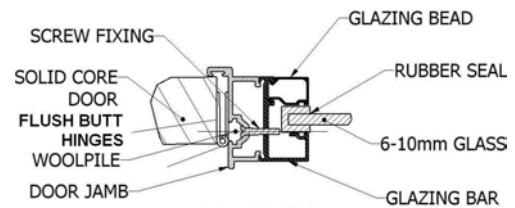


DETAIL 'A'

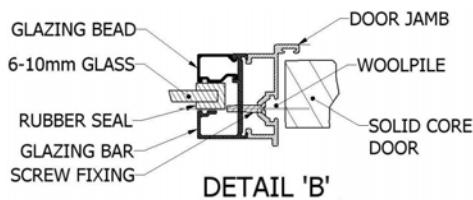
NB: Minimum 4 flush butt hinges required.



DETAIL 'D'



DETAIL 'C'



DETAIL 'B'

Ideally suited in a high traffic area where glazed walls are desired, this lends itself well to seismic bracing above the door, as opposed to the partial height option.

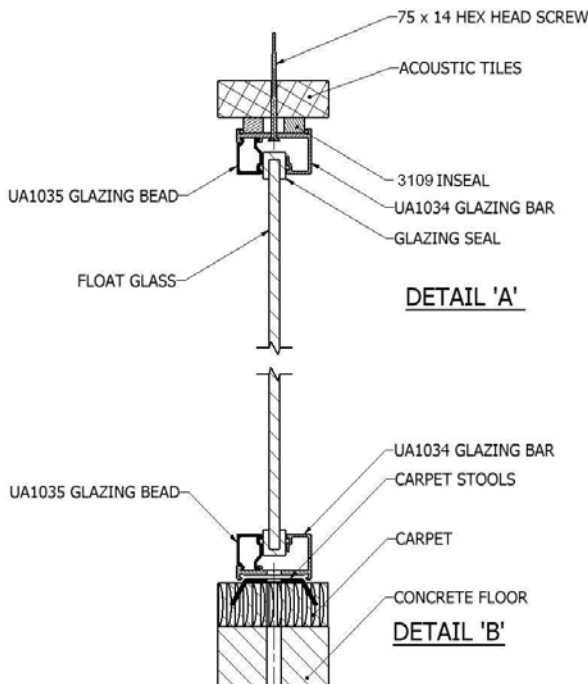
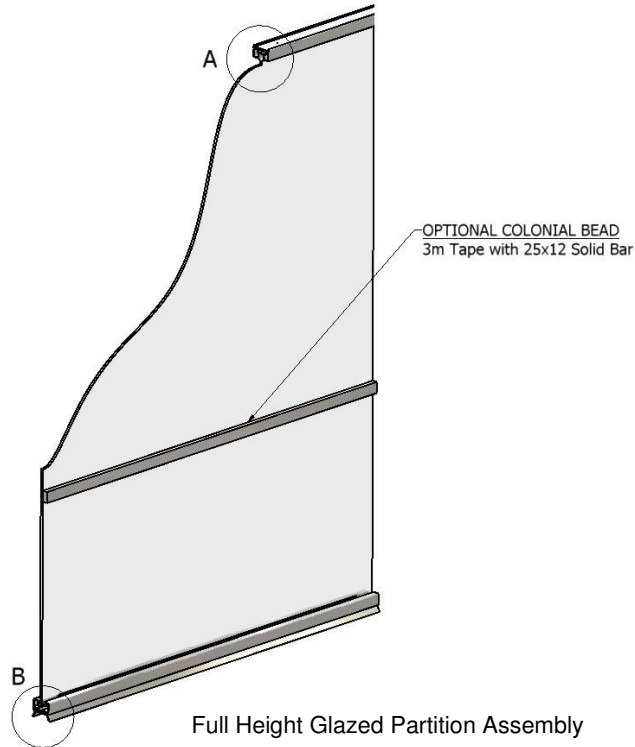
NOTE: Door Jamb UA 1788 38 – 42 mm Doors
UA 2062 42 – 47 mm Doors

Glazing Bead UA 1035 if Powdercoated
UA 3209 if Anodized
Glazing Bar UA 1034

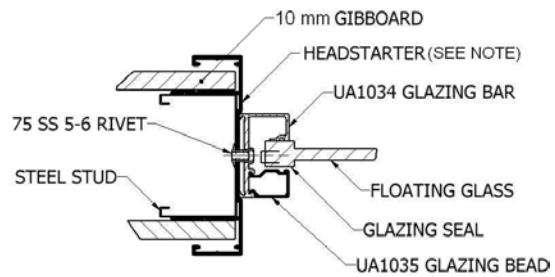


Full Height Glazed Partition

S.T.C.	Soft Body Impact	Deflection



Vertical Section Showing Inner Details



This is an ideal wall option when an additional amount of natural light is required together with and / or visual access to other office areas. When the colonial bead option is utilized a greater degree of deflection reduction is achieved.

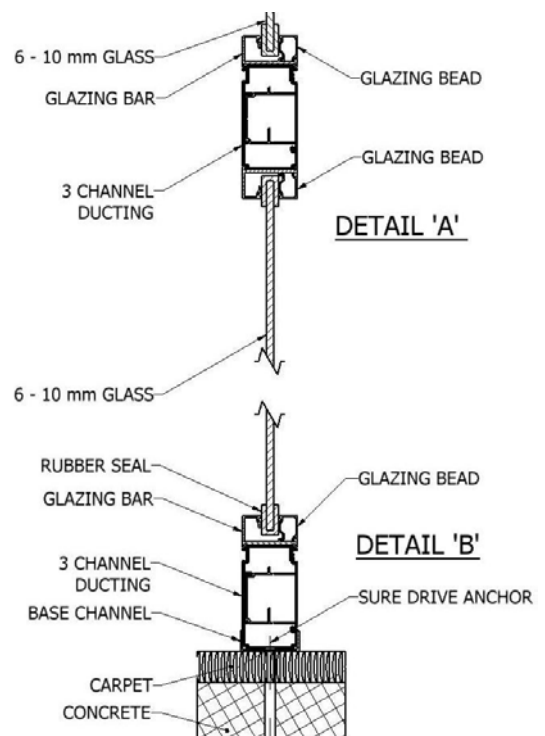
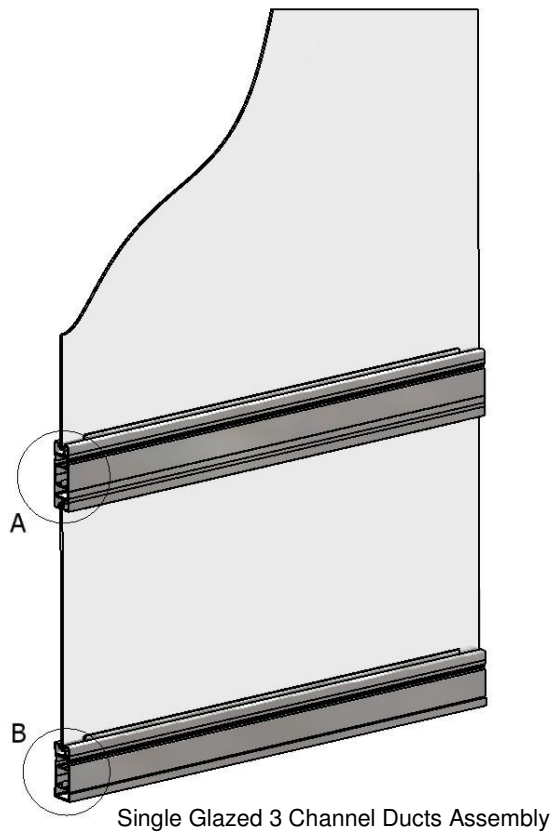
NOTE: Head Starter UA4360 if Powder coated / Anodized

- Glazing Bar UA 1034
- Glazing Bead UA 1035 if Powdercoated
- UA 3209 if Anodized



Glazed Partition with Ducting

Glass	S.T.C.	Deflection



Ideal option where a small amount of telephone, data and power reticulation is required and still retain the benefits of full glazing.

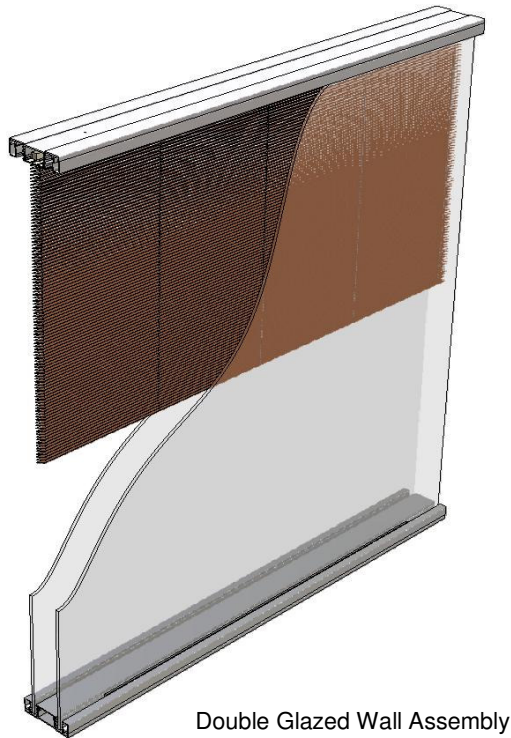
This option can be utilized at either floor level or at desk height, the latter also providing the added benefit of a vision / crash rail in high traffic areas.

NOTE: Ducting Base UA 1040
 Ducting Divider UA 1041
 Ducting Lid UA 1042

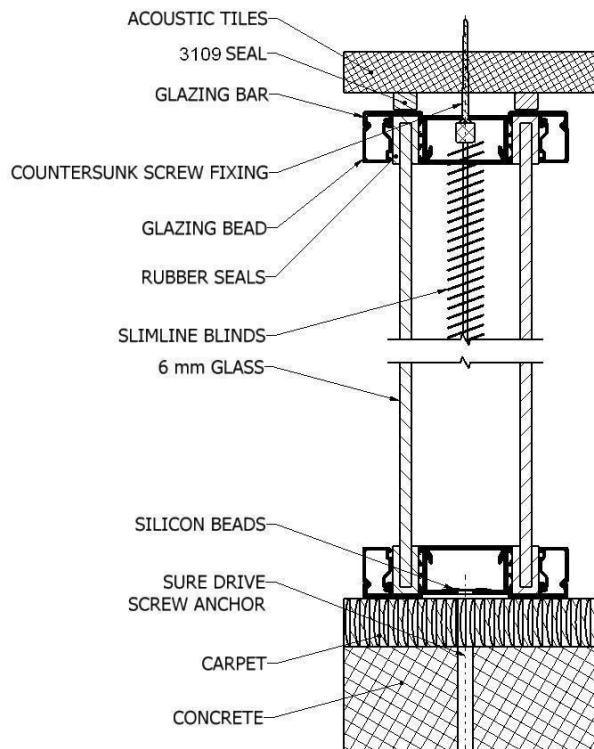


Double Glazed Partition

Glass	S.T.C.	Deflection
6 mm + 6 mm		
6 mm + 10 mm		
6 mm + 10 mm		



Double Glazed Wall Assembly



Vertical Section Showing Inner Details

This is the ultimate option for sound transmission reduction when high visibility light inter office is required to accommodate occasional requirements for privacy, then the addition of micro binds between the glass panels is recommended with the added benefit of maintenance free (cleaning).

Remote control operation of binds is also worth considering.

NOTE: Double Glazing UA 1314
Double Glazing Cap UA 1313
Glazing Bead UA 1035